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What is claimed is:

1. ✓ An isolated TGF-beta receptor fusion protein that competitively inhibits binding of TGF-beta to TGF-beta receptor.
- 5 2. The fusion protein of claim 1, comprising TGF-beta Type II receptor linked to a second protein that is not a TGF-beta Type II receptor.
- 10 3. The fusion protein of claim 2, wherein the second protein is a constant region of an immunoglobulin.
4. The fusion protein of claim 3, comprising SEQ ID NO: 8 or SEQ ID NO.: 9.
5. ✓ An isolated TGF-beta receptor fusion protein comprising amino acids 1 to 160 of SEQ ID NO: 8.
6. ✓ An isolated TGF-beta receptor fusion protein comprising amino acids 1 to 160 of SEQ ID NO: 9.
- 20 7. The isolated protein of claims 5 or 6, wherein the amino acids are linked to at least a portion of a constant region of an immunoglobulin.
8. An isolated polynucleotide encoding, on expression, for an TGF-beta Type II receptor linked to a second protein that is not a TGF-beta Type II receptor.
- 25 9. ✓ The isolated polynucleotide of claim 8, selected from the group consisting of:
(a) SEQ ID NOS.: 10 or 12; (b) a polynucleotide that hybridizes to the foregoing sequence under standard hybridization conditions and that encodes a protein having the TGF-beta inhibitory activity of a TGF-beta Type II receptor fusion protein; and (c) a polynucleotide that codes on
30 expression for a protein encoded by any of the foregoing polynucleotide sequences.

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10. A composition comprising a TGF-beta receptor fusion protein in a pharmaceutically acceptable carrier, the fusion protein in an amount sufficient to competitively inhibit binding of TGF-beta to a TGF-beta ligand.

5 11. A vector comprising the polynucleotide sequence of claim 9.

12. A host cell containing the vector of claim 11.

10 13. A method for producing a TGF-beta receptor fusion protein, comprising culturing the host cell of claim 12, allowing said cell to express the fusion protein, isolating and purifying the fusion protein.

14. A method for lowering the levels of TGF-beta in an individual in need thereof which comprises administering to said individual a TGF-beta-lowering amount of a TGF-beta antagonist that is a TGF-beta receptor fusion protein comprising the sequence of amino acids of SEQ ID NOS: 8 or 9.

15 15. A method for lowering the levels of TGF-beta in an individual having arthritis, which comprises administering to said individual an effective amount of a TGF-beta antagonist that is a TGF-beta receptor fusion protein comprising the sequence of amino acids of SEQ ID NOS: 8 or 9.

16. A method for treating an individual for a medical condition associated with TGF-beta overproduction comprising the step of administering to the individual a TGF-beta Type II receptor fusion protein having an amino acid sequence shown SEQ ID NOS: 8 or 9 in an amount sufficient to reduce the activity of TGF-beta in said individual.

17 The method of claim 16, wherein the TGF-beta receptor fusion protein is administered by a method selected from the group consisting of intravenous, intraocular, intraarticular, transdermal, and enteral administration.

18. The method of claim 16, wherein said medical condition comprises a fibroproliferative disorder.

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1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the research and the objectives of the study.